

Serial No. 09/600,593

Attorney Docket: 1959/49027

REMARKS

In response to the Official Action dated June 4, 2002, Applicant amends the application and requests reconsideration. In the Amendment, claim 25 has been amended, and claims 38, 42, 43 and 47 have been cancelled. No new matter has been added. Claims 20, 21, 23, 25, 27, 29, 30, 36, 37, 39-41, 44-46, 48-50 and 56 are now pending and under examination.

Figure 3 was objected to under 37 CFR 1.84(h)(5) as showing two different embodiments in the same view. Applicant has amended Figure 3 to delete the second embodiment and has added a new figure (Figure 3b) directed to the second embodiment, thereby overcoming the objection. Applicant has also amended the description of Figure 3 in accordance with the changes to the drawings.

The disclosure was objected to because the previous amendment, filed on April 16, 2002, failed to include previously made changes. Applicant has corrected the error.

Claims 42 and 47 were objected to under 37 CFR 1.75(C) as being of improper dependent form. Applicant has deleted claims 42 and 47, rendering the objection moot.

Claims 41 and 45-50 were rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification as originally filed. Specifically, claims 41 and 45 were rejected for reciting a limitation that is allegedly not supported by the application as originally filed. Applicant respectfully traverses this rejection, because this limitation is supported by the original application (see, for example, original claim 2).

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Claim 25 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of which Applicant regards as the invention. Specifically, it was stated that the limitation "the plate springs" in claim 25 lacks antecedent basis. Applicant has amended claim 25 to add antecedent basis for the claim limitation.

Claims 38, 42 and 43 were rejected under 35 U.S.C. §101 because the invention is allegedly inoperative and therefore allegedly lacks utility. The cancellation of claims 38, 42 and 43 renders the rejection moot.

Claims 20, 21, 23, 25, 27, 29, 30, 36-50 and 56 were rejected under 35 U.S.C. §101 because the claimed invention allegedly lacks utility. The rejection of cancelled claims 38, 42 and 43 is moot. With respect to the other rejected claims, Applicant respectfully requests that the rejection be reconsidered and withdrawn.

It is stated in the Office Action that the only practical utility of a double joint such as the claimed invention is a constant velocity joint. To support this statement, the Office Action cited the third full paragraph in the second column on page 100 of the attachment to the Office Action.

Applicant's attorney has carefully reviewed the cited paragraph of the attachment to the Office Action but could not find any support for the statement that the only practical utility of a double joint is a constant velocity joint (although the claimed invention can be a constant velocity joint). The cited paragraph only states that the most common example of constant velocity joints is the double Cardan joint. This, however, does not mean that the only practical utility of the double Cardan joint is a constant velocity joint.

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If the Examiner thinks it is helpful, Applicant invites the Examiner to call Applicant's attorney to discuss this point further and clarify any misunderstandings.

In light of the foregoing remarks, this application is considered to be in condition for allowance, and early passage of this case to issue is respectfully requested. If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #1959/49027).

Respectfully submitted,

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VERSION WITH MARKINGS SHOWING CHANGES MADE**IN THE SPECIFICATION:**

On Page 8, the first full paragraph has been amended as follows:

A steering shaft double-cross universal joint according to the invention is represented in Figures 1 and 2. The joint consists of a tubular dual fork coupling case 8 in which two joint crosses 9 are [respectively] mounted for movement. The shaft ends [1] 2 and [2] 3 are jointed on one another by means of the forks 4 and 6 which are journaled on the joint crosses 9, and [to the socket 7 by the ball neck 10 and the balls 5] by means of a ball joint. The ball joint includes a ball 5 mounted to one shaft end 2, 3 and a socket 7 mounted to the other shaft end 2, 3. The ball 5 is resiliently mounted for rotation about its center point in the socket 7 and is slidingly moveable in the direction of the shaft axis of the other shaft end 2, 3. Bellows can protect the joint against dirt.

One Page 10, the first full paragraph has been amended as follows:

In Figure 3 it is furthermore to be seen that the plate springs 31 are held advantageously in an annular chamber 34 which is formed at the end of fork 6 at a shaft end. In [the upper half of the figure] Fig. 3, the tumbler guide means 7, 30, is provided with a flange 33 which serves as a spring abutment and is urged against another flange 41 configured as a holding lip or claw, so that, in the rest position, it is aligned axially with the shaft axis. The flange 41 furthermore holds the friction bearing in an axial position.

One Page 10, the last paragraph has been amended as follows:

In Fig. 3b, [the bottom half] another variant of the tumbler sleeve mounting is shown; here the tumbler sleeve 7, 30 is urged by a spring or springs 31 abutting flange 33 on the tumbler side against the flange 35 on the fork side. The springs 31 in that case thrust against the flange 41 forming the chamber 34; for assembly they are held on the socket 7. In this manner, as shown in [Figure 3] Figures 3 and 3b, the tumbler sleeve 7, 30 (or the socket 7, 30) is resiliently

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pivotably mounted to the other shaft end and resiliently supported in the axial direction, so that the tumbler sleeve 7, 30 can tumble resiliently about the shaft axis when subjected to a radial force. The bushing 11 is advantageously affixed to the tumbler socket 7 by holding means 32, 32.2. Advantageously this is accomplished by rim 32, at least on the side of bushing 11 remote from the fork 6. The hook of the rim 32 should overlap the bushing 11 at least to the extent that, when wear occurs and free play results it will not drop out. At the other end of the bushing 11 a retaining projection 32.1 can be provided which holds the bushing 11 in place in the other axial direction.

IN THE CLAIMS

Claims 38, 42, 43 and 47 have been cancelled.

Claim 25 has been amended as follows:

25. (Twice Amended) Joint according to claim 23,

wherein the metal springs are plate springs, and

wherein the plate springs are biased against the socket, so that the shaft axis, when in the unstressed position, is aligned with the axis of the socket.